

### **REMARKS**

Claims 1, 3, 4, 7, 9 and 11-15 are pending. Claims 1 and 11 have been amended as indicated above. Support for such amendments may be found, for example, on pages 3 and 6 of the specification. Reconsideration of the instantly claimed invention is requested in light of the following remarks.

#### **I. CLAIMS 1, 3, 4, 7, 9-11, AND 13-15 ARE PATENTABLE OVER THE EXAMINER'S CITED COMBINATION OF REFERENCES**

The Examiner rejected claims 1, 3, 4, 7, 9-11, and 13-15 under 35 U.S.C. 103(a) as being unpatentable over RD 382014A in combination with Pung et al. (WO9925318). More specifically, the Examiner asserted that the RD reference teaches a textured wipe for treating skin where a pattern of texture is applied to a substrate by a hot-melt technique. The Examiner acknowledged that the RD reference fails to teach the type of material that composes the RD substrate, and also fails to teach the surface area coverage range, the specific shapes of the raised elements, and the diameters of the raised texture, as specifically required in the claimed invention. Nevertheless, the Examiner asserted that it would have been obvious in light of Pung to select a material having a basis weight as required in the instant claims and that, at least in part, because "[t]here is no criticality seen in applicants' claimed shapes and diameter sizes," it would have been otherwise obvious to employ various surface area coverages, raised element shapes, and diameters to achieve the claimed invention. Accordingly, the Examiner rejected the claims.

In reply, applicants respectfully submit that the claimed invention is patentable over the Examiner's cited combination of documents. In particular, applicants note that not only do the cited documents fail to provide the requisite motivation to combine the teachings thereof to achieve the claimed invention, but moreover, the cited references fail to teach or suggest the unexpected results discovered by applicants to be associated with the claimed articles having the recited combinations of substrate basis weights and raised element diameters. In light of such unexpected results and other arguments, the claimed invention is patentable over the cited documents.

As illustrated in the Rule 132 Declaration of Joseph Luizzi, a true and correct copy of which is attached hereto, applicants have discovered significant and unexpected properties associated with the articles of the claimed invention as compared to comparable articles having combinations of substrate basis weights and raised element diameters outside of the claimed ranges. In particular, as shown in Table 2 of the Rule 132 Declaration, applicants have recognized unexpectedly that the combination of claimed basis weights and element diameters achieves an article that exhibits a dynamic coefficient of friction against a fabric surface that is greater than at least 1.7 times, and in certain cases from greater than about 1.9 to about 70 times, the dynamic coefficient of friction as compared to articles made outside the claimed ranges. As discussed in the Rule 132 Declaration, the dynamic coefficient of friction (CoF) is a measure of the force required to sustain sliding movement of an article across the test surface. Such measure is related to an article's ability to effectively provide massaging and deep cleansing action during use, wherein a higher dynamic CoF indicates an advantageously higher tactile sensation, including increased massaging and ability to provide deeper cleansing. As shown by the various CoF values reported in Table 2, the particular dynamic CoF associated with various combinations of basis weights and element diameters is not readily predictable. Nevertheless, applicants have discovered unexpectedly that the claimed articles having the claimed values exhibit synergistically high dynamic CoF values against fabric and thus offer increased massaging and cleansing properties as compared to other comparable articles.

Furthermore, applicants note that the articles of the claimed invention not only exhibit a desirable and unexpectedly high CoF against fabric, but also exhibit a desirable combination of CoF against rubber, drape, and surfactant capacity properties as shown in Table 3 of the Declaration.

There is no teaching or suggestion in the RD reference, Pung, or the combination thereof that any particular combination of substrate basis weights or raised elements diameters are capable of producing an article having the unexpected CoF against fabric achieved by the claimed invention. In addition, there is no teaching or suggestion that an article of the claimed invention comprising the unexpected CoF against fabric in combination with the desirable combination of CoF against rubber, drape, and surfactant capacity properties is achievable *at all*,

let alone by combining the substrate basis weight and raised element diameters required by the claimed invention. Rather, the broad teachings of the RD reference and Pung suggest that a variety of articles comprising combinations of basis weights and element diameters *outside* of the claimed ranges are acceptable and equally suitable for use as those presently claimed. Accordingly, one of skill in the art would not be motivated, nor provided any suggestion, to achieve an article of the claimed invention having the specifically recited basis weights and diameters and unexpected properties associated therewith in light of the teachings of the RD reference, Pung, and otherwise in the art. The claimed invention is therefore patentable over the Examiner's rejection and should be allowed.

## **II. CLAIM 12 IS PATENTABLE OVER THE EXAMINER'S CITED COMBINATION OF REFERENCES**

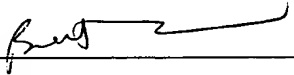
The Examiner rejected claim 12 under 35 U.S.C. 103 (a) as being unpatentable over RD382014A in combination with Pung et al. and Thomas et al. (US 5116563).

In reply, applicants respectfully submit that claim 12 is patentable over such combination of documents for the same reasons as discussed above for the remainder of the claims. Namely, there is no teaching, suggestion, or motivation to combine the references to achieve the claimed method. In particular, there is no teaching or suggestion to produce an article by combining a substrate having the specific basis weight with raised elements having the specific diameter at all, let alone any indication that such combination results in an article having the unexpected and desirable CoF against fabric. Accordingly, the Examiner's rejection should be withdrawn and the claims allowed.

### III. CONCLUSION

In light of the above amendments and remarks, applicants respectfully submit the application is in condition for allowance and requests an early notice of allowance for this application. Should the Examiner have any questions regarding this submission, please contact the undersigned.

Respectfully submitted,



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Docket No. JBP 562 US

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : McMeekin et al  
Serial No. : 09/923,552 Art Unit: 1615  
Filed : August 7, 2001 Examiner: Joynes  
For : TEXTURED ARTICLE

I hereby certify that this correspondence is being deposited with the  
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December 15, 2004

(Date)

Brett Freeman

Name of applicant, assignee, or Registered Representative

(Signature)

December 15, 2004

(Date of Signature)

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**RULE 132 DECLARATION OF JOSEPH LUIZZI**


I, Joseph Luizzi, hereby declare and state that:

1. I am an inventor in the above-referenced patent application. I hold a B.S. degree in Biology (1983) from Akron University, and an M.S. degree in Polymer Science (1986) from Akron University. I have been employed by Johnson & Johnson

Consumer Companies, Inc., the assignee of the application, and its predecessors in interest, since 1994 holding various positions including my current position as Manager of Technology. I have extensive experience and familiarity with substrate materials, hot melt coatings, and the development of textured articles using such materials and coatings for use in consumer products.

2. I am familiar with the prosecution history of my patent application. I am aware that the invention as now claimed defines a textured article comprising a substrate having at least two sides and raised elements on at least one surface of the substrate, wherein (i) the substrate is selected from the group consisting of a woven fabric, a knit fabric, a nonwoven fabric, a laminate of a fabric and a polymeric film, a flocked fabric, and combinations thereof; (ii) the substrate has a basis weight ranging from about 50 grams per square meter to about 150 grams per square meter; (iii) the discrete raised elements have a diameter ranging from about 0.5 mm to about 3 mm; and (iv) the substrate is loaded with a composition selected from a skin care composition and a hair care composition. I have reviewed the current rejections of the claimed invention and the research document and patent/patent applications cited therein.
3. As illustrated in Tables 1 and 2 of the Experimental Description and Results document attached hereto, we have discovered unexpectedly that the articles of the claimed invention exhibit surprisingly high dynamic coefficient of friction (CoF) properties against fabric as measured using the Test method (TM#72609) described in the attached Experimental section and as compared to comparable articles having basis weights and diameters outside of the claimed ranges. More specifically, we have recognized that the articles of the present invention exhibit a CoF on fabric that is at least **1.7 times**, to as much as **1.9 to 70 times**, higher than comparable articles having basis weights and/or diameters outside of the claimed ranges. Such unexpectedly high CoF is not readily predictable based on the teachings of the Examiner's cited documents or the art in general.

4. The dynamic CoF measures the force required to sustain sliding of an article across and against a fabric surface. Such force is related to the article's ability to massage and deeply cleanse a surface, in that, a higher dynamic CoF indicates a higher tactile sensation, including increased massaging and deep cleansing, associated with a textured article. Accordingly, our discovery of the relatively high dynamic CoF against fabric associated with the claimed articles imparts significant advantages to such articles, namely, such articles are capable of higher tactile sensation to a user (i.e. higher massaging and deep cleansing properties) which are highly desirable in the use of such article as a personal care wipe or product.
5. Furthermore, as described in the Experimental section and shown in Table 2, we have further discovered that the articles of the present invention exhibit an advantageous combination of properties in addition to the unexpectedly high dynamic CoF against fabric. In particular, the claimed invention exhibits desirable static CoF against fabric, CoF against rubber, surfactant capacity, and drapeability properties in combination with the unexpected CoF against fabric. Such combination of beneficial properties is not readily predictable and provides significant advantage to the claimed articles.
6. I hereby declare that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true and further that the statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

  
Joseph Luizzi

Dec. 15, 2004  
Date

## Experimental Description and Results

### Test Samples

A material sample of the present invention (A) and four comparative test material samples (B-E), shown in Table 1, were prepared by pattern coating the same dot pattern of raised elements, varying only the specified diameter of the dots for each material A-E as indicated in Table 1, onto a substrate having the basis weight shown for A-E below, respectively. The materials were tested and properties measured as described below.

Table 1

Sample	Substrate Basis weight (gsm)	Raised Element Diameter (mm)
A	70	1
B	10	0.5
C	10	5
D	400	0.5
E	400	5

### Dynamic Coefficient of Friction (CoF) against fabric

The dynamic CoF against fabric for each sample A-E were measured using the standard test method TM#72609 in which a 2.5" x 2.5" sled wrapped in foam rubber weighing 206 grams is wrapped with a sample (A-E) swatch and then dragged horizontally across a standard fabric surface. The dynamic CoF was measured using an Inston Tester with a coefficient of friction sled attached to the load frame. Four samples of each of A-E were measured and shown, with their average dynamic CoF measurements in Table 2. The CoF measurements for the sample A were significantly and unexpectedly higher as compared to samples B-E.

Table 2 – Dynamic CoF against Fabric

SAMPLE	Dynamic CoF – Run 1	Dynamic CoF – Run 2	Dynamic CoF – Run 3	Dynamic CoF – Run 4	Avg.
A	<b>0.544</b>	<b>0.605</b>	<b>0.533</b>	<b>0.584</b>	<b>0.567</b>
B	0.344	0.289	0.27	0.265	0.292
C	0.027	0.005	-0.013	0.014	0.008
D	0.330	0.296	0.361	0.326	0.328
E	0.425	0.271	0.350	0.240	0.322

Static Coefficient of Friction Against Fabric

The static CoF is a measure of the force required to begin movement of the sample and fabric surfaces relative to each other. The static CoF was measured for each of samples A-E in the experiments conducted above. The results are shown in Table 3 below.

Coefficient of Friction (CoF) Against Rubber

The static and dynamic CoF against rubber for each of samples A-E were measured via the same procedure as above, except that the samples were dragged along a standard rubber sample instead of fabric. The results are shown in Table 3.

Drapeability/Stiffness

The drape/stiffness of each of samples A-E were measured using the Gurley Stiffness measure (TM#200370) as described below. The data is shown in Table 3.

The measuring instrument consists of a balanced pendulum, which is center-pivoted and can be weighted at three points below its center. The pointer moves freely in both the right and left directions. Samples of specific sizes [0.5” x 1” ] are attached to a clamp, which is located in one of several positions on a motorized arm. The bottom 0.25” of the sample overlaps the top of a triangular shaped vane, as the sample is moved against the top of the vane the pendulum moves

until the sample bends and releases it. Digital Gurley testers automatically calculate results. Readings are taken at both the right and left scale readings, and then averaged.

This measure relates to the wipes consumer aesthetics. Namely high numbers will indicate materials that are stiff, lacking drape and conformability. Thin (low basis weights) offer improvements in drape, however they may be flimsy and appear to be of low quality. Surprisingly, the 70 gsm material with the 1mm diameter dots (A), provides ample drape and conformability, yet does not appear thin or flimsy.

#### Maximum Surfactant Capacity

The Maximum Surfactant Capacity was determined by first weighing a dry sample and measuring the “fabric dry weight”. Then samples were submerged into a standard Dry Wipe Lotion until fully saturated. The sample was then placed over a line until excess liquid dripped off, then placed in an oven for 24hrs at 60°C. The samples were then reweighed and noted as “after solution dry wt.” The surfactant capacity was then calculated via the equation :

$$\text{after solution dry wt.} - \text{fabric dry wt.} = \text{capacity}$$

Results are shown in Table 3.

From a consumer perspective, the sample must have sufficient capacity to readily hold the needed amount of surfactant and water necessary for the consumer to complete their cleansing experience. If the capacity is too low, insufficient surfactant will be in the article to effectively cleanse the face. If the capacity is too high, the wipe may be perceived as too heavy if fully saturated, or become somewhat more unwieldy during use.

Table 3 – Sample Properties

SAMPLE	Avg. Static CoF - fabric	Avg. Static CoF - rubber	Avg. Dynamic CoF - rubber	Avg. Stiffness	Avg. Surfactant Capacity (gsm)
<b>A</b>	<b>0.594</b>	<b>0.320</b>	<b>0.210</b>	<b>5.282</b>	<b>524.6</b>
B	0.188	0.207	0.233	0.9267	43.2
C	0.027	0.090	0.105	1.436	44.3
D	0.828	0.391	0.186	482.817	4122.6
E	0.677	0.593	0.316	574.417	4033.9